The Miracle of the Egg!

chicken egg appears to be a simple structure consisting of a hard shell enclosing Athe egg white with a yellow yolk at the center. In fact, it is an exceedingly complex structure described as a "miracle of engineering." Other accolades for the egg include "Nature's Perfect Package" (1) and "Life's Perfect Invention... nature's most perfect life support system." (2)



David Attenborough in his documentary revealed the wonder behind what he calls these "incredible miracles of nature." Avian eggs exist in many sizes, colors and variegated patterns. The smallest egg is that of the bee hummingbird egg,

measuring about the size of a coffee bean and half the weight of a standard paper clip. The

Continued on page 4

CREATION SCIENCE ASSOCIATION OF ALBERTA Volume 52 Number 1 **January** 2025

Uplifting Creation Weekend 2024

by Margaret Helder The people who came to Creation Weekend, October 25 and 26, 2024 were greatly impressed by Dr. Kurt Wise's passion, depth of information and quality of his arguments. His topics ranged firstly from the nature of dinosaur fossils and what these tell us about their lives and fate, and secondly to God's dealing with His Creation and how this impacts our estimates of the age of the

universe, and thirdly how Christians can interact with our modern society. Specifically we have no need to introduce the reality of God to anyone because everyone actually already perceives the existence of the Creator of Heaven and Earth, whether they admit it or not.

The dinosaur presentation was by far the most popular. With interesting illustrations, Dr. Wise demonstrated the wonderful design of dinosaurs both for appearance and function. Even fearsome dinosaurs however display the impact of the fall of man. Therefore, the fossil record also displays numerous dinosaur injuries and diseases. Next Dr. Wise discussed the nature of sedimentary deposits and where and why dinosaurs are found: specifically we saw dinosaur death poses, articulated skeletons and bone beds, all of which tell us about the nature of the catastrophe that killed the dinosaurs. He demonstrated from the extent of various rock layers, that this flood was indeed worldwide. The audience was delighted with such fascinating new information concerning dinosaur studies.

The third presentation, entitled Compelling Creator, was definitely the keynote message. Dr. Wise based his argument on the self-revealing God of Romans 1:18-21. From this passage we understand that God reveals Himself to all people by means of His Creation. God uses the creation as a powerful message, so that man is without excuse if he fails to acknowledge God who is apart from nature, and yet is the cause of all that we observe.

Dr. Wise therefore declared that we do not need to try to prove the existence of God. People already know that He exists. We rather need to show people the implications of what we see in nature. Compelling and persuasive arguments are the ticket, but not proof. (There is no proof in sci-

Continued on page 2

ence anyway.) In this context, Dr. Wise launched into an overview of the implications of what we see in nature.

For a start and on a very basic level, because we observe that every system runs down, loses energy and eventually decays, we know that the universe won't last forever. Therefore we know that the universe cannot be infinitely old (eternal). We therefore know that the universe had a beginning. If there was a beginning, then we naturally look for a cause.

Another observation in our experience is that every event has a cause. Moreover since we understand that the universe contains all matter (and energy), space, and time, then the cause of the universe must be outside of these features. Since the cause is outside of the universe, which is made of matter or is material, then the cause must be nonmaterial and outside of time. This means that the cause is transcendent and eternal.

Now we turned to what we can learn about the Creator from more specific knowledge about nature. Firstly, we universally observe that information comes from information and in any transmission of information, some of it is lost. Thus, whatever caused the universe to appear, had more information than the universe itself. So, the Creator is omniscient.

The issue of information concerns the nature of language, which comes only from a communicating intelligence. Physicists, cosmologists and other scientists know that the universe operates according to the principles of mathematics. These concepts are basically imaginary or in the mind. An equation may tell us something that is true, but none of it, of itself, is a physical reality. Most interestingly, the universe operates according to the language (principles) of mathematics. Why should the imaginary world of mathematics fit the universe? Since there is a language at the base of the universe, then the cause of it must be a communicating intelligence.

We continue to see the person and work of God in each aspect of nature. The DNA that controls the processes of life for all creatures, is itself a language. Dr. Wise discussed various features of DNA, concluding that like mathematics, it has to come from a mind. Purpose and planning always come from a mind. The several layers of control on how the information in the DNA of each creature is expressed, could simply not have appeared spontaneously but had to come from a planning intelligence.

Dr. Wise then turned his attention to other features of nature which are precisely designed to support life and the universe that we know. For example, if the unique features of water were otherwise, life could not exist. Also, among subatomic particles, the proton is 1000x the size of the electron, but their opposite electrical charges are perfectly balanced. If this were not so, there would be no chemistry and no life. →







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Uplifting Continued from page 2

The most fun topic was chaos. When it comes to chaos, most of us think of our child's playroom or husband's workshop. However, the term really means interacting forces that can produce wildly unexpected values (like the weather). In recent years, scientists have realized that most systems in nature are chaotic. For example, in our solar system, scientists cannot explain why planets stay in stable orbits around the sun rather than bumping into each other or whizzing off into interstellar space. Such studies show us that without God's continuous supervising con-





trol, everything in nature would fall apart, even the processes that make life possible.

In the end, having touched on many important characteristics of nature, well known to our modern society, Dr. Wise declared that the cause of the universe was the conscious plan and decision of an immanent, transcendent, immaterial, unchanging, beautiful, omniscient, eternal, communicating personal being who had/has man in mind. It behooves all who understand the nature of the Creator, to turn to the words of Romans 1 and to all of Scripture. The promise and demands of the gospel are all outlined therein. Dr. Wise meant it when he entitled his presentation "Compelling Creator"

Isaac Newton / Illuminating Wonders

Book Review by Alisha Bain

Isaac Newton

Are your kids, grandkids, or friends looking for a new book to read? Well, this book will do. It is great for all ages and is written from a creationist point of view.

Many will enjoy this book, for many reasons. One great thing about this book is that it has many photos, illustrations and little fun facts along the way. This helps the book be more interesting, for

your younger readers. Plus, with the chapter breaks, and topic sections, you can easily read as small or as large sections as you want. As well as being written in an easy to understand way, it is also very engaging for your older kids. With many facts most people don't know, all kids will enjoy the read.

This book introduces the ideas of Newton's 3 laws, and of physics, and chemistry in our world. Separated into seven chapters, each provides a number of topic sections. As well there is a glossary to help your kids figure out confusing words and a timeline of Newton's life.

Doesn't it feel like everything in our society is promoting evolution? Well one amazing thing about this book is that it talks about how Newton believed that God was the intelligent designer. He believed in God with his whole heart. In the book it says that Newton wrote more about the Bible than anything else. That is a passion for God's word! In this book it tells how Newton knew that what he found was to bring glory to his Father in heaven. Using this book your kids can learn about science and God in the same place.

I loved this book, and I recommend it for all ages. Not only will your kids love it, but this book is great for their brain! Learning about Sir Issac Newton was fun! It is inspiring for all ages and a great read for all.

Heroes of Creation Science Series by Michael Stamp and Renée Dusseau / 59 pages

largest bird egg is that of the ostrich. They are on average 15 cm (5.9 in.) long, 13 cm (5.1 in.) wide, and weigh 1.4 kilograms (3.1 lbs.), which is over 20 times greater than the weight of a chicken egg. The egg is designed to protect its fetus in almost every environment, from the poles, where the temperature can reach 50 degrees below zero, to the tropics. (3)

One element crucial to every egg embryo is warmth. Thus, one parent must sit on the egg to ensure that it stays warm enough to thrive. Yet, although the ovoid package comes in different sizes and colors from white to black and almost every color in-between, the basic design is very similar.

The Eggshell

The bird's eggshell is a remarkable piece of engineering. Although very thin, eggshells are extremely strong; harder than some metals. Eggshells are strong enough to withstand the full weight of an incubating parent. (4) Chicken eggshells must also be strong enough to resist being fractured from the outside, but weak enough to be broken from the inside when the chick is ready to hatch. How this design is engineered is nothing short of ingenious. (5)

One source of the shell's strength is osteopontin protein that is embedded inside the eggshell's crystal structure. Osteopontin forms a scaffold that guides the calcium-containing mineral assembly arrangement, generating the nanostructure that helps to produce the eggshell layer's hardness. The outside of the shell has the smallest nanostructure, thus is harder and, as we move inwards, the shell becomes softer. The design requires a balance between strength and fragility in order to allow the chick to break out of the egg. This design was described by one research team as an eggshell that "has an unusual combination of mechanical properties (low fracture toughness combined with high Young's modulus), making it ideally suited as a container for the developing chick, which must be stiff and rigid but also brittle enough to be broken when required."

The eggshell not only protects the chick developing inside, but it acts as a semipermeable membrane that allows air and moisture to pass through about 7,000 pores in a controlled fashion. This allows the chick inside to breathe, while protecting it from drying out from loss of water. As time progresses, the nanostructure of the outermost of

the three eggshell layers remains unchanged, but the inner layer nanostructure becomes smaller in size. This is a result of calcium carbonate in the eggshell being dissolved in the acidic conditions of the egg white. The calcium carbonate is then used in the developing chick's skeleton.

The Egg Parts Inside the Shell

The germinal disc is a small white spot on the yolk where the egg can be fertilized. If the germinal disc is fertilized, an embryo begins to grow, called a blastoderm. The yolk sac supplies food to the embryo, including minerals, vitamins, fat, and protein. The amnion is a transparent sac filled with a colorless fluid that serves as a protective cushion during embryonic development. Lying between the eggshell and egg white are two transparent protein membranes that provide an efficient defense against bacterial invasion. These surprisingly strong layers are constructed partly of keratin, the same protein used in human hair.

The *chorion* membrane surrounding the developing fetus provides nourishment and protection for the developing embryo. The *allantois* is a hollow sac-like structure that is critical to help the embryo exchange gasses and han-











dle liquid wastes. The *chalazae* are strands of rope-shaped egg white that anchor the yolk in the egg's center. They attach to the clear tissue that encloses the yolk, called the *vitelline membrane*, to the membrane lining of the eggshell.

No Evidence for Egg Evolution

Evolution of eggs would have required the chance development of the many fetal membranes in the egg including the yolk sac, amnion, chorion, and allantois. (7) All of these parts must exist in their entirety simultaneously and be functionally integrated. In other words, shelled-eggs are irreducibly complex. Even evolutionists have been forced to admit that eggs are wonderfully designed, but evolutionists believe that they were 'designed' by evolution: "we should be making materials that are inspired by nature and by biology because ... it is really hard to beat hundreds of millions of years of evolution in perfecting something." (8) Attenborough adds that the egg's creator was not God, but natural selection: "By creating an egg, natural selection devised the perfect life-support system." (9)

Eggs would have been critical (in an evolutionary mindset) to the transition from an aquatic to a terrestrial environment, yet evolutionists have been unable to even produce plausible speculations about *their* evolution. From an evolutionary standpoint, one "of the most important steps in the evolution of vertebrates was the 'invention' of the amniote egg... its appearance marks the beginnings of the history of

the reptiles and the... evolution of the great groups that are dominant today, the birds and mammals." (10)

Scientists have long taught that the first terrestrial animals must have laid shell-less eggs which eventually evolved into eggshell-enclosed eggs in order to conquer living on dry land. How this occurred is an overwhelmingly unsolvable problem for evolution. (11) Evolving eggs without shells, that were fertilized in water, into eggs that are fertilized when in the mother's body, requires hundreds of structural changes. The leading manual dealing with eggs often opined about bird and egg evolution in the introduction, but mentioned not a word about when, where, or why their evolution happened. (12)

The fossil record contains no evidence of the evolution of eggshells. The record shows either eggs with eggshells or those completely lacking in eggshells. Nothing in-between has ever been found: "the paucity of the fossil record and the lack of intermediate eggshell types challenge efforts to homogenize eggshell structures..." (13) This is true even though eggshells are preserved comparatively well in the fossil record. Although no evidence exists that eggshells evolved even once, nonetheless evolutionists have concluded that eggshells evolved separately three independent times. (14)

The basis for this conclusion is because the "calcitic eggshell consists of one or more ultrastructural layers that differ markedly among the three major dinosaur clades, as do the configurations of respiratory pores." (15) Instead of proposing that one type of eggshell evolved into the other types, the differences are so great that three separate evolutionary paths were proposed. In summary, eggs are another example of the major evidence against evolution and a major support for the fact of irreducible complexity in biological systems. They are "a true biological masterpiece, and at the same time, a puzzle" to evolutionists. (16)

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The common perception of the Arctic is that it is a frozen, uninhabited wasteland. Truthfully, most of it is. Evolutionists claim it has been like this for millions of years but that there is evidence that it was warmer and wetter in the past. In 1985, Paul Tudge of the Geological Survey of Canada spotted tree stumps on the Canadian Arctic island of Axel Heiberg while conducting a helicopter survey. A year later, a team of geologists, paleobotanists, and graduate students returned and found enormous tree stumps they interpreted as being still rooted in the soil they grew in (Basinger, 1987).

A recent *SciTechDaily* article discussing three new walnut species identified among the Axel Heiberg fossils says, "Paleontology and geology records indicate there was more CO_2 in Earth's atmosphere at the time, which resulted in temperatures that were much higher than they are now. This global greenhouse, in turn, created warm ocean circulations that kept the Arctic Ocean free of ice" (Lang, 2024). Note the claim that there was more atmospheric CO_2 when these forests were growing than now, and it was not because of humans burning fossil fuels. In short, secular scientists explain polar forests by claiming that more CO_2 in the atmosphere produced a global greenhouse that caused warm oceans, keeping the Arctic Ocean ice-free.

The fossil forests of Axel Heiberg have been compared to the modern cypress swamps of the Everglades in Florida (Basinger, 1987). Even with warm oceans providing what secular scientists call a tropical rainforest climate where many types of trees could grow, it still experienced a polar daylight cycle. Secular scientists claim that the warm oceans may have prevented freezing temperatures during the long winter nights and that the growing season would have been short like it is today, but long summer days would have allowed for rapid growth (Lang, 2024).

However, climate models run in the early 1990s failed to reproduce the warm, wet climate secular scientists believe existed at the poles. Therefore, the paleobotanists believe the climate models must be wrong. However, the climate models at the time were greatly

improved over earlier versions and may have been basically correct while the paleobotanists clung to a uniformitarian model that did not work (Oard, 1995a). Models have, in many regards, improved even more in the last 35 years. Perhaps they should be run again in a creationist study.

The fossils discovered on Axel Heiberg, rather than being petrified, compressed into coal, or burned and preserved as charcoal, are in their original state. They are waterlogged and shallowly buried in sediment, and once excavated, they begin to deteriorate quickly (Helder, 2000). They include wood, leaves, cones, fruit, seeds, and nuts and are eroding out of the sediments so they can be picked up off the ground, which is how many current specimens were collected. Some of the nuts have holes gnawed in them by animals. Secular scientists interpret these fossil forests as having been buried rapidly by sediments laid down by water but that the sedimentation occurred in a swamp or lake environment about 45 million years ago, during the Eocene epoch, when global temperatures were supposedly higher than they are now (Lang, 2024). Creationists would agree that the sediments were laid down by water but disagree with the long-age timescale.

In the forests on Axel Heiberg, the largest trunk diameter is one meter with a root mass extending several meters. Horizontal logs up to 11.5 meters long are associated with the stumps and also illustrate how large the

trees may have grown. These fossil forests are only found in a few of the upper peat beds on Axel Heiberg. Some scientists think the peat was transported from elsewhere, and others think it grew in place. The roots of the trees do not penetrate into the layers below the peat, which are interpreted as paleosols (ancient soils). There is also no difference in the amount of de-



composition in the leaf litter with depth. In other words, the deeper leaf litter should be more decomposed, and the tree roots should penetrate deeper than they do, but that is not the case (Oard, 1995a).

Secular dating of the fossils is primarily based on index fossils, specifically a type of spruce cone (*Picea banksii*), and more recently, on pollen (Oard, 1995a). These dating techniques involve a lot of assumptions and circular reasoning. The index fossils are found in rock layers believed to be certain ages based on uniformitarian deep time and radiometric dating, which both rely on many unproven assumptions about the past. Because the index fossils are believed to match the secular ages of the rocks, when they are found elsewhere with no other convenient method available to date the layer, the index fossils are used to date the rocks.

For a long time, the Eureka Sound Formation, the upper part of which contains the fossil forests, was considered entirely terrestrial in origin because of the plant fossils. However, marine fossils including crinoids, foraminifera, and dinoflagellates had been reported as early as the 1970s, indicating that much of the formation was probably deposited by the Flood (Oard, 1995a).

It is important to understand how this fits into a biblical Flood model. Many creation scientists believe the Flood laid down all of the rock units extending from the Precambrian/Cambrian up to the Paleogene/Neogene (Tomkins, 2023), which includes the Eocene sediments



on Axel Heiberg. If this is a pre-Flood forest buried where it was growing, it was buried toward the end of the Flood as the last bit of high ground was inundated. However, the Flood destroyed all of the pre-Flood forests. It is also unlikely that these forests grew in place after the Flood, since they occur in repeating compressed layers of vegetation and sediment likely laid down by



sheet flows over a large area (Oard, 1995b).

The most likely explanation for these Arctic fossils and their Antarctic counterparts is that they are a Flood deposit. The Axel Heiberg fossil forests are made up of various types of warm- and cool-climate trees that don't grow together today and are reminiscent of the fossil forests of Yellowstone (Oard, 1995a). The Genesis Flood, with its tsunamis and rapidly moving currents, would have stripped enormous masses of vegetation from the land. This would have formed floating mats of debris containing plants and animals from a wide range of habitats. Many trees that flared out at their bases likely floated upright while other logs floated horizontally, similar to the trees in Spirit Lake after the 1980 eruption of Mount St. Helens. The trees would have rubbed against each other as they floated to mid and high latitudes, stripping the bark off each other. Over time, things would have become waterlogged and begun dropping out, forming layers of organic matter that were subsequently buried by Flood sediments and fossilized or compressed into coal (Oard, 1995b). While vegetation was able to germinate and grow in the wet soil as the Flood receded, large forests probably did not have time to grow at the poles before the Ice Age settled in.

It is evident that the forest remains of Axel Heiberg Island give us lots to think about.

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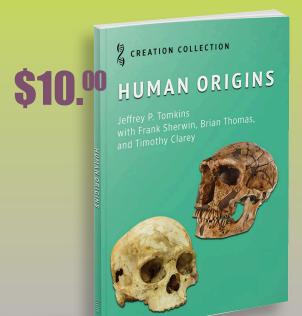
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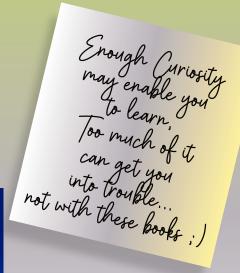
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